

Amendments to the Specification:

Please amend the paragraph beginning at line 8 on page 6 as follows:

-- ~~FIG. 8 is a partial~~ FIGS. 8-8A are a top and perspective view, respectively, of three contact groupings within a socket and air cavities disposed on the socket. --

Please add the following new paragraph after the paragraph beginning at line 8 on page 6:

-- FIG. 8B is a cross-sectional view of a socket having a cavity filled with air-filled glass balls between contacts. --

Please amend the paragraph beginning at line 12 of page 14 as follows:

-- The absolute value of a materials dielectric constant (ϵ_r) between adjacent conductors is inversely proportional to the resulting differential impedance between those conductors. Thus, the lower the resulting dielectric constant (ϵ_r) of a composite dielectric material ~~b/w~~ between signal contacts, the higher the resulting differential impedance between the contacts. Similarly, the higher the resulting dielectric constant (ϵ_r) of a composite dielectric material ~~b/w~~ between signal contacts, the lower the resulting differential impedance between the contacts. --

Please amend the paragraph beginning at line 18 of page 14 as follows:

-- As shown in FIGS. 8 and 8A ~~FIG. 8~~, a ~~plug socket~~ 14 includes a segment 32 with three contact groupings 35a, 35b, 35c. Each contact grouping includes a first signal contact 34a, 34d, 34g, a second signal contact 34b, 34e, 34h, and a reference contact 34c, 34f, 34i. A cavity 130a-130c is formed on the segment 32 centered between the first and second signal contact of each grouping. The cavities are open to air and ~~extends~~ extend from the top surface to approximately

0.113" within the segment 32. Table II provides the dimensions of the air cavities shown in FIGS. 8-8A~~FIG. 8~~, given the same parameters specified in the description of FIG. 7. –

Please amend the paragraph beginning line 19 of page 15 as follows:

-- While an air cavity between differential signals is depicted in FIGS. 8-8A~~FIG. 8~~, any material having a differential dielectric constant than the segment may be inserted between the signal contacts on either the male or female side. For example, as shown in FIG. 8B, a cavity 159 located between signal contacts 34a and 34b is filled with air-filled glass balls 160, which has a different dielectric constant than the material of the segment and thus creates a composite dielectric between the signal contacts. In other implementations, -a Teflon® insert, -air-filled glass balls, or other material having a lower dielectric constant than the material of the segment (e.g., PPS resin) may be disposed between the signal contacts in order to create a composite dielectric which reduces the resulting dielectric constant of the segment between signal contacts. Similarly, material with a higher dielectric constant may be added between the signal contacts in order to create a composite dielectric which will raise the dielectric constant of the segment between contacts. –